

PATENT ABSTRACTS OF JAPAN

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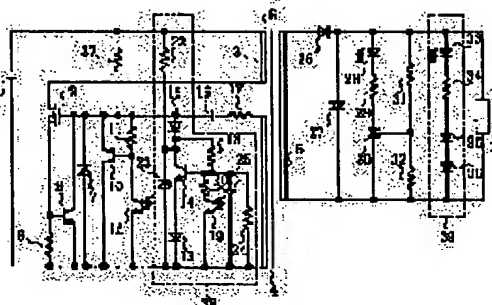
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(54) SHORT-CIRCUITING PROTECTIVE CIRCUIT

(57)Abstract:

PURPOSE: To prevent fuming and burning of parts by stopping oscillation of a power conversion switch when an output voltage decreases below a certain level due to the short-circuiting of output or parts or that of the secondary coil winding of a transformer.

CONSTITUTION: When a secondary coil winding 5 of a transformer 6 is short-circuited during operation, a light emitting element 33 of a photocoupler stops emitting light and transfers a failure output voltage detection to an oscillation circuit 38 of a power conversion switch. In an oscillation stop circuit 38, a phototransistor 19 which is the light receiving element of the photocoupler stops conducting current due to the emission stop of the light emitting element 33. Therefore, the terminal voltage of a resistor 24 obtained from the division ratio of resistors 18 and 24 of the voltage at both terminals of a zener diode 23 serially connected to a resistor 22 connected to a DC input power supply 1 increases, thus enabling a transistor 14 to conduct. Then, the drive terminal of the power conversion switch is short-circuited via a diode 15, thus stopping oscillation and hence cutting off the power supply to a secondary side for protection.



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